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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,839	09/09/2003	Jae-Myung Baek	5000-1-432	1755

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EXAMINER

TRAN, MINH LOAN

ART UNIT PAPER NUMBER

2826

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,839

Applicant(s)

BAEK ET AL.

Examiner

Minh-Loan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. §.133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. If applicant is aware of any relevant prior art, he/she requested to cite it on form **PTO-1449** in accordance with the guidelines set forth in M.P.E.P. 609.

Oath/Declaration

3. The oath or declaration filed on 09/09/2003 is acceptable.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings **must show every feature of the invention specified in the claims**. Therefore, a **plurality of pins** electrically connected to the optical components via the hole as recited in claim 1; and **signal lines** as recited in claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, line 2, the word "if" renders the claim indefinite because it is uncertainty whether the claimed structure is formed or not.

In claim 6, line 3, "said signal lines and said ground lines" lacks of antecedent basis. Note that claim 6 depends on claims 4 and 1 which do not recite the signal lines and ground lines.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Oikawa (6,074,102).

With regard to claims 1 and 7, figures 3, 5A, 5B, 9 of Oikawa disclose a TO-CAN type optical module comprising a stem 30 with optical components 24, 26 mounted on its upper surface and having through-holes 30C, 30D formed therethrough; a plurality of pins 28, 32 electrically connected to the optical components 24, 26 via the through-holes 30C, 30D; the plurality of pins 28, 32 including a signal-carrying pin protruding from the lower surface 30B of the stem 30; a pair of ground pins 34 spaced at both ends of a protruding portion of the signal-carrying pin 28 by a predetermined interval. Note lines 42-48 in column 3 Oikawa.

With regard to claim 2, figures 3, 5A, 5B, 9 of Oikawa disclose the interior of the through-holes 30C, 30D of the stem 30 is filled with glass paste GP and has a desired characteristic impedance by the impedance matching of a coaxial cable. Note lines 35-43 in column 4 and lines 7-13 in column 5 of Oikawa.

With regard to claim 3, figures 3, 5A, 5B, 9 of Oikawa disclose the lower surface 30B of the stem 30 has a desired characteristic impedance according to the dimensions of the protruding portion of the signal-carrying pin 28 and the ground pins 34, and an

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interval between the protruding portion of the signal-carrying pin 28 and the ground pins 34. Note lines 35-43 in column 4, lines 7-13 and lines 56-67 in column 5, lines 1-21 in column 6 of Oikawa.

With regard to claim 8, figures 3, 5A, 5B, 9 of Oikawa disclose the optical components 24, 26 are one of laser diode and a photodiode. Note lines 11-12 in column 3 and lines 34-37 in column 7 of Oikawa.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oikawa (6,074,102).

Figures 3, 5A, 5B, 9 of Oikawa disclose the signal-carrying pin 28 includes a cylindrical portion passing through the stem 30 and a cylindrical portion protruding from the lower surface 30B of the stem 30. Figures 3, 5A, 5B, 9 of Oikawa do not disclose the portion of the signal-carrying pin 28 protruding from the lower surface 30B of the stem 30 has a hexahedral shape. However, it would have been obvious to one of ordinary skill in the art to form the portion of signal-carrying pin that protruding from the stem 30 of Oikawa's device having hexahedral shape in order to obtain a desired

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characteristic impedance of 50Ω. Note lines 37-43 in column 4 of Oikawa is cited to support for the well-known position.

Allowable Subject Matter

8. Claims 5 and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Loan T. Tran whose telephone number is (571) 272-1922. The examiner can normally be reached on Monday-Friday 9:00 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MIT
05/2005



Minh-Loan T. Tran
Primary Examiner
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